

**Amendments to the Claims:**

Claim 1. (Currently Amended) A method of fermenting ~~modifying~~ milk by means of a bacterial culture which is capable of being metabolically active in said milk, the method comprising

- (i) isolating a bacterial strain which is not capable of DNA replication, RNA transcription or protein synthesis in said milk but is metabolically active and thereby enabling acidification of said milk, ~~capable of metabolically modifying the milk,~~
- (ii) propagating the isolated bacterial strain in a medium wherein the strain is capable of replicating to obtain the bacterial starter culture of said strain,
- (iii) adding the thus obtained bacterial starter culture to the milk and keeping the milk under conditions where the bacterial starter culture is metabolically active,

whereby, if the milk is contaminated with a bacteriophage, the metabolic activity of the bacterial culture is substantially unaffected by the bacteriophage.

Claim 2. (Previously Presented) A method according to claim 1 wherein the milk is limited with respect to at least one compound that is required by the bacterial strain for DNA replication, RNA transcription or protein synthesis.

Claim 3. (Previously Presented) A method according to claim 2 wherein the bacterial strain is a mutant strain which is auxothrophic in respect of a compound which is not present in the milk and which is required by the strain for replication.

Claim 4. (Previously Presented) A method according to claim 3 wherein the mutant strain is a Pur<sup>-</sup> mutant.

Claim 5. (Previously Presented) A method according to claim 3 wherein the mutant strain is a *thyA* mutant.

Claim 6. (Previously Presented) A method according to claim 2 wherein the strain in said milk is not capable of performing at least one activity selected from the group consisting of DNA replication, RNA transcription and protein synthesis.

Claim 7. (Previously Presented) A method according to claim 1 wherein the milk comprises at least one compound that inhibits the DNA replication, RNA transcription or the protein synthesis of the bacterial strain.

Claim 8. (Cancelled)

Claim 9. (Currently Amended) A method according to claim 1 wherein the bacterial culture is selected from the group consisting of *Lactococcus* spp., *Lactobacillus* spp., *Leuconostoc* spp., *Pediococcus* spp., *Streptococcus* spp., *Propionibacterium* spp., *Bifidobacterium* spp., *Staphylococcus* spp., *Micrococcus* spp., *Bacillus* spp., *Enterobacteriaceae* spp. including *E. coli*, *Actinomycetes* spp., *Corynebacterium* spp. and *Brevibacterium* spp.

Claim 10. (Previously Presented) A method according to claim 9 wherein the bacterial culture is a culture of *Lactococcus lactis*.

Claim 11. (Previously Presented) A method according to claim 1 wherein the bacterial culture added to the milk includes the bacterial strain at a concentration in the range of  $10^5$  to  $10^9$  CFU/ml or g of the material.

Claim 12. (Previously Presented) A method according to claim 1 where the bacterial culture comprises a genetically modified strain which, relative to its parent strain is enhanced in at least one metabolic pathway.

Claim 13. (Original) A method according to claim 12 wherein the genetically modified strain has, relative to its parent strain, an enhanced metabolic activity selected from the group consisting of enhanced glycolytic flux and enhanced flux through the pentose phosphate pathway.

Claim 14. (Original) A method according to claim 13 wherein the genetically modified strain has, relative to its parent strain, an enhanced ATPase activity.

Claim 15. (Original) A method according to claim 1 wherein the bacterial culture comprises a strain which is a conditional mutant which at a predetermined condition does not perform at least one activity selected from the group consisting of DNA replication, RNA transcription and protein synthesis.

Claim 16. (Previously Presented) A method according to claim 15 wherein the predetermined condition is selected from the group consisting of pH, temperature, composition of the milk and presence/absence of an inducer substance.

Claim 17. (Previously Presented) A method according to claim 1 wherein the bacterial culture comprises a bacterial strain which is capable of increasing the size of the cells without mitosis.

Claims 18-23 (Cancelled)

Claim 24. (Currently Amended) A method of manufacturing a milk product comprising adding a starter culture composition comprising a modified lactic acid bacterium to a milk ~~product~~ and keeping the thus inoculated milk under conditions where the modified lactic acid bacterium is metabolically active, said modified lactic acid bacterium is modified to become incapable of performing DNA replication, RNA transcription or protein synthesis in said milk which is limited with respect to at least one compound that is required by the modified lactic acid bacterium for DNA replication, RNA transcription or protein synthesis, said modified lactic acid bacterium is capable of being metabolically active in said milk ~~substrate material and thereby enabling acidification of said milk~~, subject to the limitation, that the modified lactic acid bacterium does not include a strain selected from the group consisting of strain DN101, DN102, DN103, DN104 and DN105 (~~DSM12289~~), whereby, if the milk is contaminated with a bacteriophage, the metabolic activity of the modified lactic acid bacterium is substantially unaffected by the bacteriophage.

Claim 25 (Cancelled).

Claim 26. (Currently Amended) A method of preparing a milk product, comprising adding a bacterial starter culture to a milk product, said bacterial starter culture being capable of being metabolically active in said milk product, the bacterial starter culture made by a method comprising:

(i) isolating a bacterial strain which is not capable of DNA replication, RNA transcription or protein synthesis in said milk product but is metabolically active and thereby enabling acidification of said ~~is capable of metabolically modifying the~~ milk product,

(ii) propagating the isolated bacterial strain in a medium wherein the strain is capable of replicating to obtain the bacterial starter culture of said strain, and

(iii) adding the bacterial starter culture to the milk product and maintaining the thus-obtained inoculated milk product under such conditions that the bacterial strain of the bacterial starter culture is metabolically active,

whereby, if the milk product is contaminated with a bacteriophage, the metabolic activity of the bacterial starter culture is substantially unaffected by the bacteriophage.

Claim 27. (Currently Amended) A method of preventing a lactic acid bacterial starter culture infection by bacteriophages in the manufacturing of a milk product, the method comprising adding to the milk product a starter culture comprising a lactic acid bacterium prepared by a method comprising:

(i) isolating a lactic acid bacterium strain which is not capable of DNA replication, RNA transcription or protein synthesis in said milk product but is metabolically active and thereby enabling acidification of said ~~capable of metabolically modifying the~~ milk product,

(ii) propagating the lactic acid bacterium strain in a medium wherein the lactic acid bacterium strain is capable of replicating to obtain the starter culture of said lactic acid bacterium strain,

(iii) adding the thus obtained starter culture to the milk product which is limited with respect to at least one compound that is required by the lactic acid bacterium strain for DNA replication, RNA transcription or protein synthesis ~~milk product~~ and keeping the milk product under conditions where the starter culture is metabolically active,

whereby, if the milk is contaminated with a bacteriophage, the metabolic activity of the starter culture is substantially unaffected by the bacteriophage.

Claim 28. (Previously Presented) A method according to claim 4 wherein the mutant strain is *Lactococcus lactis* strain DN105 deposited under the accession number DSM 12289.

Claim 29. (Previously Presented) A method according to claim 5 wherein the mutant strain is *Lactococcus lactis* strain MBP71 deposited under the accession number DSN12891.

Claim 30. (Currently Amended) A method for keeping the capability of a bacterial strain to ferment milk even in the presence of a bacteriophage, the method ~~reducing susceptibility to attack by bacteriophages in milk~~ comprising:

(i) isolating an auxotrophic bacterial strain which maintains its metabolic activity in the absence of an auxotrophic component in the milk and thereby enabling acidification of said milk;  
and

(ii) adding the auxotrophic bacterial strain to said milk.

Claim 31. (Currently Amended) A method of preparing a dairy flavouring and/or a product for cheese flavouring comprising, adding a bacterial starter culture to a dairy flavouring and/or a product for cheese flavouring starting material, said bacterial starter culture being capable of

being metabolically active in said dairy flavouring and/or product for cheese flavouring starting material, the bacterial starter culture made by a method comprising:

(i) isolating a bacterial strain which is not capable of DNA replication, RNA transcription or protein synthesis in said dairy flavouring and/or product for cheese flavouring starting material but is metabolically active and thereby enabling acidification of said ~~capable of metabolically modifying the~~ dairy flavouring and/or product for cheese flavouring starting material,

(ii) propagating the isolated bacterial strain in a medium wherein the isolated bacterial strain is capable of replicating to obtain the bacterial starter culture of said isolated bacterial strain, and

(iii) adding the bacterial culture to the dairy flavouring and/or product for cheese flavouring starting material and maintaining the thus-obtained inoculated dairy flavouring and/or product for cheese flavouring starting material under such conditions that the bacterial strain of the bacterial starter culture is metabolically active,

whereby, if the dairy flavouring and/or product for cheese flavouring starting material is contaminated with a bacteriophage, the metabolic activity of the bacterial starter culture is substantially unaffected by the bacteriophage.

Claim 32. (Previously Presented) A method according to claim 9 wherein the bacterial culture is *E. coli*.